REMARKS

This Application has been carefully reviewed in light of the Office Action mailed June 15, 2004 ("Office Action"). At the time of the Office Action, Claims 1-20 were pending in the application. In the Office Action, the Examiner rejects Claims 1-20. Applicants amend Claims 1, 4, 6, 11, 13, 16, 18. Applicants do not admit that these amendments were necessary as a result of any cited art.

Section 112 Rejections

The Examiner rejects Claims 1-20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner rejects Claims 1-20 because Claims 1-20 "do not specify what is the use and purpose of the claimed invention." (Office Action, ¶ 4).

Applicants respectfully request the Examiner to identify the specific portion of 35 U.S.C. § 112 that requires claims to describe "the use and purpose of the claimed invention." To the extent that 35 U.S.C. § 112 does have such a requirement, Applicants submit that the elements of Claims 1-20 do recite "the use and purpose of the claimed invention," especially when viewed in light of the application disclosure, as required by M.P.E.P. §1504.04, Part III (*citing In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971))("[T]he definiteness of the language employed must be analyzed – not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art."). Therefore, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. § 112.

Section 103 Rejections

The Examiner rejects Claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,727,214 issued to Allen ("*Allen*") in view of Pai, "Flash: An efficient and portable Web server" ("*Pai*"). Applicants respectfully request reconsideration and allowance of Claims 1-20.

Amended Claim 1 recites, "a finite state machine operating within a portable thread environment wherein a plurality of threads communicate with each other . . . and one or more

PTE message generators configured to pass event information contained in PTE messages to the finite state machine, wherein the finite state machine changes states according to the event information." Applicants respectfully submit that the *Allen-Pai* combination fails to teach, suggest, or disclose various aspects of Claim 1. In particular the *Allen-Pai* combination fails to teach, suggest, or disclose a "portable thread environment wherein a plurality of threads communicate with each other," as recited, in part, in Claim 1. Moreover, Applicants respectfully submit that *Pai* actually teaches away from a "portable thread environment wherein a plurality of threads communicate with each other," as recited, in part, in Claim 1. "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). (M.P.E.P. § 2142.02).

For example, *Pai* teaches that "multi-threaded (MT) servers . . . employ multiple independent threads of control operating within a single shared address space (Pg. 3, left column, ¶ 3, emphasis added). *Pai* then elaborates that "the threads must use some form of synchronization to control access to the shared data." (Pg. 3, left column, ¶ 4). As a "form of synchronization," *Pai* suggests that an "operating system provide[] support for [the] threads. That is, when one thread blocks on an I/O operation, other runnable threads within the same address space must remain eligible for execution." (Pg. 3, left column, ¶ 5 - pg. 4, right column, ¶ 1).

Furthermore, *Pai* suggests an "Asymmetric Multi-Process Event-Driven (AMPED) architecture ... combin[ing] the event-driven approach of the SPED architecture with multiple *helper* processes (or threads) that handle blocking disk I/O operations." (Pg. 4, left column, ¶ 3, emphasis in original). *Pai* further depicts these helper threads in Figure 5, which illustrates the threads working independently without communicating with each other.

Therefore, in both instances where *Pai* proposes the use of multiple threads, *Pai* clearly abandons the use of threads communicating with each other in favor of independent threads that are synchronized via an operating system. For at least these reasons, and because the proposed *Allen-Pai* combination fails to teach, suggest, or disclose the various elements of Claim 1, Applicants respectfully request reconsideration and allowance of Claim 1.

Claims 2-5 depend from Claim 1, shown above to be allowable, and recite further limitations that are distinct from the *Allen-Pai* combination. For example, *Allen* fails to

teach, suggest, or disclose "wherein the event information comprises one or more events passed to a thread and a present state of the finite state machine," as recited, in part, in Claim 2. The Examiner relies on a cited portion of *Allen* that teaches an event announced "with any arguments associated with the announced event, and an indication of the port of origin" (col. 8, ll 1-5, 11-15) to reject Claim 2. (Office Action, ¶ 11). However, *Allen* does not teach, suggest, or disclose that the event information <u>comprises</u> the "present state of the finite state machine," as recited, in part, in Claim 2.

Moreover, *Allen* fails to teach, suggest, or disclose "wherein the finite state machine comprises . . . a message interpreter configured to accept the PTE messages," as recited, in part, in Claim 3. According to the Examiner's citation, *Allen* teaches that the "event dispatcher utilizes a disposition matrix" to select dispositions. (Col. 4, l. 18; col. 3, ll. 62-65). However, *Allen* does not teach that the finite state machine <u>comprises</u> the event dispatcher or the disposition matrix. Indeed, Figure 1 of *Allen* illustrates a cursor state machine 126 as separate from, and <u>not comprising</u>, the dispatcher 138 and the disposition map 200. In addition, Figure 5 of *Allen* further illustrates the cursor state machine 126 as separate from, and <u>not comprising</u>, the event dispatcher 186.

Amended Claim 4 recites, in part, "wherein the finite state machine further comprises . . . a storage device for storing the one or more actions, said actions used to generate PTE messages." *Allen* does not teach, suggest, or disclose using actions to generate PTE messages, as recited in Claim 4. The teachings of *Pai* do not overcome any of the above-described shortcomings of *Allen*. Applicants therefore respectfully request reconsideration and allowance of Claims 2-5.

The Examiner rejects Claims 6 by citing the rejections of Claims 1 and 5. (Office Action, ¶ 6). For at least the reasons set forth above with regard to Claim 2, Applicants respectfully request reconsideration and allowance of Claim 6. Claims 7-10 depend from Claim 6, shown above to be allowable, and recite further limitations that are patently distinguishable from the *Allen-Pai* combination.

For instance, Claim 9 recites, in part, "further comprising . . . distributing the state machine events between one or more threads in the portable thread environment." Applicants respectfully submit that *Allen* as modified by *Pai* fails to teach, suggest, or disclose distributing <u>state machine events</u> between one or more threads. The cited portions of *Allen* teach a main state chart that "issues calls to new_event( ) to submit additional events to itself

or to another object." (Office Action, ¶ 17; col. 10, ll. 40-41). The events that are distributed as discussed in the cited portions of *Allen* are from the main state chart. (Col. 10, ll. 26-29). The main state chart of *Allen* "includes a primary set of methods executed by an 'object'" and "also includes a context record containing major and minor state variables that define the state of the main state chart." (Col. 5, ll. 41-45). *Allen* teaches distributing events generated from and relating to a main state chart, and <u>not distributing state machine events</u>, as recited, in part, in Claim 9.

Furthermore, Claim 10 recites, in part, "further comprising . . . distributing state machine events between one or more threads in the portable thread environment and a second portable thread environment." Applicants respectfully submit that *Allen* as modified by *Pai* fails to teach, suggest, or disclose "threads in a portable thread environment and a second portable thread environment," as recited, in part, in Claim 10. The cited portions of *Allen* teach a main state chart "submit[ting] additional events to itself or another object." (Office Action, paragraph 18; col. 10, lines 27-44). Examiner also relies on cited portions of *Allen* that teach taking "an event that was accepted and put[ting] it back at the front of its associated band." (Office Action, ¶ 18; col. 9, ll. 48-52). Moreover, the Examiner also relies on cited portions of *Allen* that teach a Band State Machine of which the bands comprise. (Office Action, ¶ 18; col. 7, ll. 6-33). These bands of *Allen* are "where each distinct type of event message that can be received is assigned" and "the messages in each band are stored in a FIFO queue until the messages in the band are processed." (Col. 3, ll. 49-54). In other words, the cited portions of *Allen* that the Examiner relies on merely teach bands, or message storage structures, comprising state machines. *Allen* does not teach, suggest, or disclose "distributing state machine events . . . in the portable thread environment <u>and a second portable thread environment</u>," as recited, in part, in Claim 10. The teachings of *Pai* do not overcome any of the above-described shortcomings of *Allen*. For at least the reasons set forth above, Applicants respectfully request reconsideration and allowance of Claims 7-10.

The examiner rejects Claims 11 and 16 because "they correspond to the method claim of Claim 6, respectively." (Office Action, ¶ 19). Applicants have shown Claim 6 to be allowable and for at least the reasons stated above with regard to Claim 6, Applicants respectfully request reconsideration and allowance of Claims 11 and 16. Claims 12-15 and 17-20 depend from the independent Claims 11 and 16 shown above to be allowable and recite further limitations that are patently distinguishable from the *Allen-Pai* combination. For at

least these reasons, Applicants respectfully request reconsideration and allowance of Claims 12-15 and 17-20.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Samir A. Bhavsar, Attorney for Applicants, at the Examiner's convenience at (214) 953-6581.

Although no fees are believed due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicants

Samir A. Bhavsar
Reg. No. 41,617

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CORRESPONDENCE ADDRESS:

at Customer No.   05073